

AMENDMENTS TO THE CLAIMS

1. (currently amended) A method for production of an autologous vaccine to tumor cells comprising transducing the tumor cells with one or more species of herpes simplex virus amplicon containing the gene for an [immunomodulatory] immunostimulatory protein and at least one additional therapeutic gene to provide transient expression of the [immunomodulatory] immunostimulatory protein and the therapeutic gene product by the cells.
  
- 1      2. The method according to claim 1, wherein the tumor cells are transduced with the herpes simplex amplicons *ex vivo*.
  
- 1      2. The method according to claim 1, wherein the tumor cells are transduced with the herpes simplex amplicon *in vivo*.
  
- 1      2.      3. The method according to claim 1, wherein the tumor cells are transduced with the herpes simplex amplicon *in vivo*.
  
- 1      2.      3.      4. (currently amended) A method for inducing a protective immune response to tumor cells in a patient comprising the step of transducing the tumor cells with one or more species of herpes simplex virus amplicon containing the gene for an [immunomodulatory] immunostimulatory protein and at least one additional therapeutic gene to provide transient expression of the [immunomodulatory] immunostimulatory protein and the therapeutic gene product by the cells.
  
- 1      2.      3.      4.      5. The method according to claim 4, wherein the tumor cells are transduced with the amplicon *ex vivo*, further comprising the step of introducing the transduced tumor cells into the patient.
  
- 1      2.      4.      6. The method according to claim 4, wherein the amplicons are injected into the site of the tumor cells *in vivo*.

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- 1        7. (currently amended) The method according to claim 1, wherein the [immunomodulatory]  
2                          immunostimulatory protein is a cytokine.
- 1        8. The method according to claim 7, wherein the cytokine is interleukin-2.
- 1        9. The method according to claim 7, wherein the cytokine is granulocyte macrophage colony  
2                          stimulating factor.
- 1        10. (currently amended) The method according to claim 7, wherein the  
2                          [immunomodulatory] immunostimulatory protein is a chemokine.
- 1        11. The method according to claim 10, wherein the chemokine is RANTES.
- 1        12. (currently amended) The method according to claim 1, wherein the  
2                          [immunomodulatory] immunostimulatory protein is a intercellular adhesion molecule.
- 1        13. The method according to claim 12, wherein the intracellular adhesion molecule is  
2                          ICAM-1.
- 1        14. (currently amended) The method according to claim 1, wherein the [immunomodulatory]  
2                          immunostimulatory protein is a costimulatory factor.
- 1        15. The method according to claim 14, wherein the costimulatory factor is B7.1.
- 1        16. (currently amended) The method according to claim 1, wherein a population of tumor cells  
2                          is transduced with a plurality of species of amplicons containing the genes for the  
3                          [immunomodulatory] immunostimulatory protein and the additional therapeutic gene.

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- 1        17. (currently amended) The method according to claim 1, wherein the additional therapeutic  
2                  gene encodes a second [immunomodulatory] immunostimulatory protein.
- 1        18. The method according to any of claims 17, wherein the tumor cells are transduced with  
2                  amplicons encoding and expressing at least two species of cytokines.
- 1        19. The method according to claim 18, wherein tumor cells are transduced with amplicons  
2                  containing the genes for interleukin-2 and interleukin-12.
- 1        20. The method according to claim 18, wherein the tumor cells are transduced with  
2                  amplicons encoding and expressing a cytokine and a costimulatory factor.
- 1        21. The method according to claim 20, wherein tumor cells are transduced with amplicons  
2                  containing the genes for RANTES and B7.1.
- 1        22. (previously amended) The method according to claim 1, wherein the tumor cells are  
2                  hepatoma cells or lymphoma cells.
- 1        23. (currently amended) A mixture containing a plurality of species of herpes simplex virus  
2                  amplicons, including at least a first species of amplicon containing the gene for at least  
3                  one [immunomodulatory] immunostimulatory protein and a second species of amplicon  
4                  containing the gene for an additional therapeutic gene product.
- 1        24. (currently amended) The mixture according to claim 23, wherein the [immunomodulatory]  
2                  immunostimulatory protein is a cytokine.
- 1        25. The mixture according to claim 24, wherein the cytokine is interleukin-2 or granulocyte  
2                  macrophage colony stimulating factor.

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- 1        26. (currently amended) The mixture according to claim 23, wherein the  
2                  [immunomodulatory] immunostimulatory protein is a chemokine.
- 1        27. The mixture according to claim 26, wherein the chemokine is RANTES.
- 1        28. (currently amended) The mixture according to claim 23, wherein the [immunomodulatory]  
2                  immunostimulatory protein is a intercellular adhesion molecule.
- 1        29. The mixture according to claim 28, wherein the intracellular adhesion molecule is  
2                  ICAM-1.
- 1        30. (currently amended) The mixture according to claim 23, wherein the [immunomodulatory]  
2                  immunostimulatory protein is a costimulatory factor.
- 1        31. The mixture according to claim 30, wherein the costimulatory factor is B7.1.
- 1        32. (currently amended) The mixture according to claim 23, wherein the additional  
2                  therapeutic gene encodes a second [immunomodulatory] immunostimulatory protein.
- 1        33. (previously amended) The mixture according to claim 23, wherein the first and second  
2                  species of amplicons contains genes encoding for RANTES and B7.1.
- 1        34. (previously amended) The mixture according to claim 23, wherein the first and second  
2                  species of amplicons contains genes encoding for at least two species of cytokines.
- 1        35. The mixture according to claim 34, wherein the amplicons contain genes encoding for  
2                  interleukin-2 and interleukin-12.

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- 1       36. (previously amended) Tumor cells transduced in accordance with the methods of claim 1.
- 1       37. (previously amended) Tumor cells transduced with a mixture of herpes simplex virus  
2                   amplicons in accordance with claim 23.
- 1       38. (currently amended) A method for production of an autologous vaccine to tumor cells  
2                   comprising transducing the tumor cells with a herpes simplex virus amplicon containing  
3                   the gene for an [immunomodulatory] immunostimulatory protein to provide transient  
4                   expression of the [immunomodulatory] immunostimulatory protein by the cells, wherein  
5                   the [immunomodulatory] immunostimulatory protein is selected from among  
6                   chemokines, intercellular adhesion molecules and costimulatory factors.
- 1       39. (currently amended) The method according to claim [1] 38, wherein the tumor cells are  
2                   transduced with the herpes simplex amplicons *ex vivo*.
- 1       40. (currently amended) The method according to claim [1] 38, wherein the tumor cells are  
2                   transduced with the herpes simplex cell *in vivo*.